

# Reasoning and Problem Solving

## Step 6: Compare and Order Fractions Greater than 1

### National Curriculum Objectives:

Mathematics Year 5: (5F3) [Compare and order fractions whose denominators are all multiples of the same number](#)

### Differentiation:

Questions 1, 4 and 7 (Problem Solving)

**Developing** Use digit cards to complete the statement comparing fractions greater than 1 where the denominators are multiples of the same number (halving and doubling only).

**Expected** Use digit cards to complete the statement comparing fractions greater than 1 where the denominators are multiples of the same number.

**Greater Depth** Use digit cards to complete the statement comparing fractions greater than 1 where the denominators have a common factor or common multiples.

Questions 2, 5 and 8 (Reasoning)

**Developing** Identify and explain a mistake made when comparing and ordering fractions greater than 1 where the denominators are multiples of the same number (halving and doubling only).

**Expected** Identify and explain a mistake made when comparing and ordering fractions greater than 1 where the denominators are multiples of the same number.

**Greater Depth** Identify and explain a mistake made when comparing and ordering fractions greater than 1 where the denominators have a common factor or common multiples.

Questions 3, 6 and 9 (Reasoning)

**Developing** Explain which statement is correct when ordering fractions greater than 1 where the denominators are multiples of the same number (halving and doubling only).

**Expected** Explain which statement is correct when ordering fractions greater than 1 where the denominators are multiples of the same number.

**Greater Depth** Explain which statement is correct when ordering fractions greater than 1 where the denominators have a common factor or common multiples.

More [Year 5 Fractions](#) resources.

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## Compare and Order Fractions Greater than 1

1a. Using the clue and digit cards below, complete the statement with improper fractions.



14      5      12      10

$\frac{\square}{\square} > \frac{\square}{\square}$



PS

## Compare and Order Fractions Greater than 1

1b. Using the clue and digit cards below, complete the statement with improper fractions.



3      26      6      10

$\frac{\square}{\square} < \frac{\square}{\square}$



PS

2a. Circle the mistake in the table below.

Less than $2\frac{1}{2}$	More than $2\frac{1}{2}$
$\frac{3}{2}$	$\frac{11}{4}$
$\frac{7}{4}$	$\frac{7}{2}$
$\frac{7}{2}$	$\frac{13}{4}$



Explain why this is incorrect.

R

2b. Circle the mistake in the table below.

Less than $1\frac{4}{6}$	More than $1\frac{4}{6}$
$\frac{7}{6}$	$\frac{8}{6}$
$\frac{4}{3}$	$\frac{6}{3}$
$\frac{9}{6}$	$\frac{14}{6}$



Explain why this is incorrect.

R

3a. Two children are ordering fractions.

$\frac{20}{6}$        $\frac{\square}{\square}$        $\frac{13}{3}$

Mo says,



The missing fraction could be  $\frac{11}{3}$ .



Lily says,

The missing fraction could be  $\frac{9}{3}$ .



Who is correct? Convince me.

R

3b. Two children are ordering fractions.

$\frac{18}{8}$        $\frac{\square}{\square}$        $\frac{5}{4}$

Oscar says,



The missing fraction could be  $\frac{24}{8}$ .



Sadia says,

The missing fraction could be  $\frac{14}{8}$ .



Who is correct? Convince me.

R

## Compare and Order Fractions Greater than 1

4a. Using the clue and digit cards below, complete the statement with improper fractions.



26      16      6      12

	>	



PS

## Compare and Order Fractions Greater than 1

4b. Using the clue and digit cards below, complete the statement with improper fractions.



25      18      95      5

	<	



PS

5a. Circle the mistake in the table below.

Less than $4\frac{1}{7}$	More than $4\frac{1}{7}$
$\frac{22}{7}$	$\frac{51}{7}$
$\frac{42}{14}$	$\frac{30}{7}$
$\frac{28}{7}$	$\frac{84}{21}$



Explain why this is incorrect.

R

5b. Circle the mistake in the table below.

Less than $5\frac{5}{6}$	More than $5\frac{5}{6}$
$\frac{58}{12}$	$\frac{39}{6}$
$5\frac{16}{24}$	$6\frac{4}{12}$
$\frac{35}{6}$	$\frac{80}{12}$



Explain why this is incorrect.

R

6a. Two children are ordering fractions.

$$\frac{96}{20} \quad \frac{\quad}{\quad} \quad \frac{37}{5}$$

Archie says,



The missing fraction could be  $\frac{68}{10}$ .

Kaitlin says,

The missing fraction could be  $\frac{60}{10}$ .



Who is correct? Convince me.



R

6b. Two children are ordering fractions.

$$\frac{52}{16} \quad \frac{\quad}{\quad} \quad \frac{9}{4}$$

Imran says,



The missing fraction could be  $\frac{15}{8}$ .

Bella says,

The missing fraction could be  $\frac{20}{8}$ .



Who is correct? Convince me.



R

## Compare and Order Fractions Greater than 1

7a. Using the clue and digit cards below, complete the statement with improper fractions.

$$\frac{8}{3}$$

6

9

28

24

>



PS

## Compare and Order Fractions Greater than 1

7b. Using the clue and digit cards below, complete the statement with improper fractions.

$$\frac{25}{8}$$

16

50

24

51

<



PS

8a. Circle the mistake in the table below.

Less than $3\frac{6}{15}$	More than $3\frac{6}{15}$
$\frac{36}{10}$	$\frac{63}{15}$
$3\frac{6}{30}$	$3\frac{6}{10}$
$\frac{48}{20}$	$\frac{62}{15}$



Explain why this is incorrect.

R

8b. Circle the mistake in the table below.

Less than $2\frac{12}{18}$	More than $2\frac{12}{18}$
$\frac{48}{36}$	$2\frac{28}{36}$
$2\frac{1}{3}$	$3\frac{8}{12}$
$\frac{14}{6}$	$\frac{15}{6}$



Explain why this is incorrect.

R

9a. Two children are ordering fractions.

$$\frac{31}{12} \quad \frac{\quad}{\quad} \quad \frac{39}{12}$$

Jason says,



The missing fraction could be  $\frac{25}{8}$ .

Rachel says,

The missing fraction could be  $\frac{28}{8}$ .



Who is correct? Convince me.

R

9b. Two children are ordering fractions.

$$\frac{13}{5} \quad \frac{\quad}{\quad} \quad \frac{7}{5}$$

Alex says,



The missing fraction could be  $\frac{12}{7}$ .

Kyra says,

The missing fraction could be  $\frac{11}{7}$ .



Who is correct? Convince me.

R

## Reasoning and Problem Solving

### Compare and Order Fractions

#### Greater than 1

#### Developing

1a.  $\frac{14}{5} > \frac{12}{10}$

2a.  $\frac{7}{2}$  is the mistake because it is equivalent to  $3\frac{1}{2}$  which is more than  $2\frac{1}{2}$ .

3a. Mo is correct because the fractions are ordered from smallest and his fraction ( $\frac{11}{3}$ ) comes in between the two given fractions.

#### Expected

4a.  $\frac{16}{6} > \frac{26}{12}$

5a.  $\frac{84}{21}$  is the mistake because it is equivalent to 4 which is less than  $4\frac{1}{7}$ .

6a. Both children are correct because both of their fractions are greater than  $\frac{96}{20}$  and smaller than  $\frac{37}{5}$ .

#### Greater Depth

7a.  $\frac{28}{6} > \frac{24}{9}$

8a.  $\frac{36}{10}$  is the mistake because it is equivalent to  $3\frac{9}{15}$  which is more than  $3\frac{6}{15}$ .

9a. Jason is correct because the fractions are ordered from smallest to largest and his fraction ( $\frac{25}{8}$ ) comes between the two given fractions.

## Reasoning and Problem Solving

### Compare and Order Fractions

#### Greater than 1

#### Developing

1b.  $\frac{10}{6} < \frac{26}{3}$

2b.  $\frac{8}{6}$  is the mistake because it is equivalent to  $1\frac{2}{6}$  which is less than  $1\frac{4}{6}$ .

3b. Sadia is correct because the fractions are ordered from largest to smallest and her fraction ( $\frac{14}{8}$ ) comes in between the two given fractions.

#### Expected

4b.  $\frac{18}{5} < \frac{95}{25}$

5b.  $\frac{35}{6}$  is the mistake because it is equivalent to  $5\frac{5}{6}$ .

6b. Bella is correct because the fractions are ordered from largest to smallest and her fraction ( $\frac{20}{8}$ ) comes in between the two given fractions.

#### Greater Depth

7b.  $\frac{51}{24} < \frac{50}{16}$

8b.  $\frac{15}{6}$  is the mistake because it is equivalent to  $2\frac{1}{2}$  which is less than  $2\frac{12}{18}$ .

9b. Both children are correct because both of their fractions are smaller than and greater than  $\frac{7}{5}$ .